

## Naranjo, Eugenia

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**From:** Lynn Vogel <Lynn.Vogel@dep.nj.gov>  
**Sent:** Thursday, December 18, 2014 11:44 AM  
**To:** Dickinson, John; Anne Hayton; Janine MacGregor; Naranjo, Eugenia  
**Subject:** RE: Givaudan

Folks,

Based on the below emails, can I tell Givaudan I am unable to provide them with the requested email but that

- USEPA will forward Givaudan the information that was submitted to the DEP (from the EPA) in the November 17, 2014 email which discussed revisions to the QAPP, or
- should I tell that Givaudan that EPA will be sending them a the Revised/updated QAPP which included revisions referenced in the November 17, 2014 email.

If you have other suggestions, please let me know.

Lynn Vogel  
NJDEP, SRP, BCM  
609-984-5311

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**From:** John Dickinson [mailto:John.Dickinson@dol.lps.state.nj.us]  
**Sent:** Wednesday, December 17, 2014 4:19 PM  
**To:** Anne Hayton; Janine MacGregor; Naranjo, Eugenia  
**Cc:** Lynn Vogel  
**Subject:** RE: Givaudan

FOIA Ex. (b)(5) Attorney Client Communications; Ex b(7)(A) Enforcement Proceedings

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**From:** Anne Hayton [mailto:Anne.Hayton@dep.nj.gov]  
**Sent:** Wednesday, December 17, 2014 3:15 PM  
**To:** Janine MacGregor; Naranjo, Eugenia; John Dickinson  
**Cc:** Lynn Vogel  
**Subject:** RE: Givaudan

Janine and all - My apologies for the delayed response. From my perspective, no concerns with this being released to Givaudan, however, I defer to EPA on the manner in which this is shared with Givaudan. Anne

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**From:** Janine MacGregor  
**Sent:** Wednesday, December 17, 2014 2:48 PM  
**To:** Naranjo, Eugenia; Anne Hayton; Dickinson, John  
**Cc:** Lynn Vogel  
**Subject:** RE: Givaudan

Its fine with me, but I still would like to know how Anne Hayton feels about it, and am now copying John Dickinson for his input since Sarah is involved. Janine

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**From:** Naranjo, Eugenia [<mailto:Naranjo.Eugenia@epa.gov>]  
**Sent:** Wednesday, December 17, 2014 1:58 PM  
**To:** Janine MacGregor; Anne Hayton  
**Cc:** Lynn Vogel  
**Subject:** RE: Givaudan

Janine, if it's OK with NJDEP, Sarah would rather send the information directly to Givaudan.

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**From:** Janine MacGregor [<mailto:Janine.MacGregor@dep.nj.gov>]  
**Sent:** Wednesday, December 17, 2014 10:44 AM  
**To:** Naranjo, Eugenia; Anne Hayton  
**Cc:** Lynn Vogel  
**Subject:** FW: Givaudan

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**From:** Janine MacGregor  
**Sent:** Tuesday, November 18, 2014 9:26 AM  
**To:** Anne Hayton; Naranjo, Eugenia  
**Cc:** Steve Maybury; Basso, Ray; 'John Dickinson'; Tom Cozzi  
**Subject:** RE: Givaudan

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Eugenia, Lynn was asked by Givaudan for this email. I'm not sure why you weren't, but anyway, I just wanted to make sure you were ok with releasing it to them. Anne, do you have any concerns? Janine

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**From:** Naranjo, Eugenia [<mailto:Naranjo.Eugenia@epa.gov>]  
**Sent:** Monday, November 17, 2014 7:13 PM  
**To:** Janine MacGregor  
**Cc:** Steve Maybury; Anne Hayton; Basso, Ray  
**Subject:** Re: Givaudan

Janine,

See below EPA's responses to NJDEP's comments on the Dioxin Investigation QAPP. Also, for your information, I enclosed below a more detailed explanation of the procedures that we will use to collect samples from the Givaudan cell, and reseal it when the work is complete. This will be added to the QAPP prepared by Lockheed, EPA's contractor. Let me know if you have any comments or concerns. Please let me know what more, if anything, you need in order for NJDEP to provide written consent to and approval of EPA's investigation.

Thanks,  
eugenia

#### RM 10.9 DIOXIN INVESTIGATION RESPONSE TO NJDEP'S COMMENTS:

1. QAPP Worksheet # 12-1: analytical units for Method 1613 (dioxins/furans), Low, for sediment, are listed as ng/mL, which represents ppb levels for liquids - - why would this be the goal for these analyses....possible error ? I believe it should either be ng/kg or pg/g (ppt) for soil/sediments.

EPA's response: The Ongoing Precision and Accuracy (OPR) standard which is a QC sample is reported by the lab in ng/mL. The results and the recoveries for the OPR whether it is calculated in ng/mL or ng/kg will be the same. The units for reporting actual samples can be found on Worksheet 15-1.

2. The only concern/thought I have on the sampling approach has to do with the undesignated depth of sample collection. It's true that it is difficult to know what depth is best to target, based on the sparse detail available on exactly how contaminated soil was placed in each cell. (i.e., the Givaudan cell is reportedly 17 feet deep - - were the most highly contaminated soils placed at bottom - ? hard to know). So, in the absence of a pre-determined target depth, the decision-making strategy for sample collection should be clarified.

EPA's response: Although the cell is indicated to be 17-feet EPA/ERT has concerns of getting within a foot of the bottom and risking perforating the cell. We do not know for a fact that the bottom is exactly at 17-feet below ground surface at all locations. The highest contaminated soil are located in the center all directions. We believe that the 6-12 feet target depth is reasonable for targeting the contaminated soil and avoiding any additional damage to the cell's integrity.

Regarding the sampling depth at the Diamond Alkali site, Page 14 of the QAPP specifies a sampling depth of 3-5'.

#### GIVAUDAN DIOXIN CONTAINMENT CELL SAMPLING PROPOSAL- DRAFT PROCEDURE FOR GIVAUDAN WASTE CELL SAMPLING

During sampling the goal will be to collect samples from the highest contaminated cell soil which is located roughly at the center of the cell. Care will be made to minimize damage to the cell structure and to repair any damage afterwards. Lockheed Martin's Insurance information has been forwarded to the Givaudan Lawyers. Lockheed Martin/SERAS will be granted access prior to sampling the cell. Equipment and personnel will be staged on the "blacktop" of the cell during the actual sampling process. Focus will therefore be on the center of the cell where soils with higher contamination (greater than 20 ug/kg TCDD) were contained. The surface of the cell will be perforated during sampling but the bottom of the waste cell will not be compromised. The damaged surface of the cell will be repaired where sampled. The asphalt surface will likewise be patched to prevent inflow of surface water during later storm events.

The asphalt will be cut attempting initially to confine the cut to roughly a **2-foot by 2-foot square**, using a STIHL brand or equivalent, gas powered Cut-Off Saw with a diamond blade. The chain link fence below will be cut by hand and the piece of fencing removed and placed aside. Lockheed Martin will use their 6600 DT Geoprobe to collect the samples. The Geoprobe will use a 2.25 outside diameter tool string. Although it is planned to use the 2.25 geoprobe tooling, the 3.25 tooling will be brought to the location as back up if there are recovery issues and volume of sample issues. Each Rod of the Geoprobe is 5-feet in length, including the sampler. The hole will be centered on the open square and pushed to the desired depth. The probe will then be removed and the sample collected and processed on Site. Split samples were requested by Givaudan. Although we wish to minimize the number of perforations, it may be necessary to make an additional hole or holes alongside the original if there is insufficient sample soil recovery. Portland Type 1 cement will be used for grouting the boring. The grout will be mixed in a bucket with a drill and mixing bit to the desired consistency. The borehole abandonment will be done using the *Tremie* method. After sampling is completed the boring will be grouted and the machine moved off the hole. The top clean soil will then be removed down to the nonwoven geotextile membrane either by hand or possibly use of a vacuum truck. The geotextile membrane will then be patched with a similar piece of 8 ounce nonwoven geotextile slightly larger than the damaged section. This will overlap and adhere with a high-strength spray adhesive such as 3M Spray Adhesive 90-24. Bentonite and/or other sealant material (e.g. Tremco brand "Paraseal") may be placed on top of the geotextile patch to help seal and provide additional protection to the sampling location. The clean soil will be replaced on the geotextile patch and the asphalt at the surface will be patched. The asphalt patch used to repair the hole will be Sakrete or quickcrete brand all weather blacktop patch or similar. SERAS will use a Vibratory Plate Compactor to tamp down the asphalt patch. Note that it may be necessary to make a larger cut to properly address the membrane cover or to obtain sufficient sample. If

the cut asphalt area ends up being considerably larger than Lockheed Martin/SERAS may opt to subcontract a repaver to better repair the damaged asphalt surface.

The sampling effort will focus on the area 6 to 12 feet below ground surface (bgs). Two locations approximately 25-feet apart will be sampled to increase the chance of collecting a sample of interest. Samples will be processed on Site. Split samples will be provided to Givaudan. Surplus sample material, if applicable, may be archived for a period of time at Lockheed Martin/SERAS. Sampling of the Givaudan cell is anticipated to be completed within one day but an additional day (possibly not consecutive) may be necessary for repairing the asphalt, if needed, and unknown or unforeseen circumstances may alter or lengthen this schedule. It will be necessary to perform this sampling when daytime temperatures are reasonably warm and the weather is dry.

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**From:** Janine MacGregor <[Janine.MacGregor@dep.nj.gov](mailto:Janine.MacGregor@dep.nj.gov)>

**Sent:** Thursday, November 13, 2014 4:33 PM

**To:** Naranjo, Eugenia

**Cc:** Steve Maybury; Anne Hayton

**Subject:** Givaudan

Hi Eugenia,

We got a request through Sarah Flanagan to John Dickinson that you guys wanted approval to disturb the cap at Givaudan for the Dioxin at RM 10.9 sampling (not sure what you are calling it). Steve Maybury is the manager of the group that oversees Givaudan. He has stated they are fine with the procedures being used disturb and restore the cap, but he understands we've not heard back from you guys regarding our comments on the QAPP, and that once we are satisfied his staff can approve the proposal to disturb the cap.

As you know we support this sampling and don't want to hold it up. But we would like to know how/if Anne's comments (attached) were addressed. Do you think you could call Anne Hayton at 609-984-9772 and walk her through them? Thanks, Janine

p.s. (I apologize if you have responded already, the last few months have been a whirlwind).

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